



#18C
PATENT

09/785,546

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Sonya Franklin

Examiner: Charles L. Patterson, Jr., Ph.D.

Serial No.: 09/785,546

Group Art Unit: 1652

Filed: February 16, 2001

Docket: 875.037US1

Title: ARTIFICIAL ENDONUCLEASE

AMENDMENT AND RESPONSE UNDER 37 C.F.R. § 1.111

Commissioner for Patents
Washington, D.C. 20231

Applicant has reviewed the Office Action mailed on September 12, 2002. Please amend the above-identified patent application as follows.

In the Specification

Please make the paragraph substitutions indicated in the appendix entitled "Clean Version of Amended Specification Paragraphs". The specific changes incorporated in the substitute paragraphs are shown in the following marked-up versions of the original paragraphs:

Please replace the paragraph beginning at line 24 on page 8 with the following paragraph:

Figure 1C. Two views of the overlay of engrailed (1ENH) helix-turn-helix (HTH) region ($\alpha 2$ - $\alpha 2$) and one EF-hand of calmodulin (1OSA; third Ca-site) thus illustrating that the helices occupy the same space. The C-terminal $\alpha 3$ is the homeodomain recognition helix which binds in the DNA major groove. [Engrailed (1ENH) is shown in blue, calmodulin (1OSA; third Ca-site) in purple, and the] The Ca(II) ion is shown as a [red] sphere.

Please replace the paragraph beginning at line 29 on page 8 with the following paragraph:

Figure 2. Sequences of peptide P2 (control; SEQ ID NO:1) P3, P4, P4a and P5 (synthetic; SEQ ID NO:2, SEQ ID NO:7, SEQ ID NO:4, SEQ ID NO:3 and SEQ ID NO:5, respectively), and loop modified Engrailed (SEQ ID NO:6). Parent protein sequence is indicated by double or single underlining (homeodomain and EF-hand). Expected sites of Ca(II) [binding are indicated by an x in panel A, expected sites of] and Eu(III) binding are indicated by an x [in panel B, sites of phosphate backbone contact with an o in panel A, DNA base contacts